



November 21, 2012

North Dakota Public Service Commission
Public Utilities Division
600 E Boulevard Ave, Dept. 408
Bismarck, ND 58505-0480

Subject: Bison 3 Wind Project
Case No. PU-11-162
Construction Inspection - October 23, 2012

Attn: Mr. Jerry Lein
North Dakota Public Service Commission

Gentlemen,

This letter is written in response to two concerns identified in the subject inspection prepared by Keitu Engineers and Consultants, Inc. 2610 Old Red Trail, Ste. C, Mandan, ND 58554 – 1447.

The first concern is related to welding inspection on wind turbine tower sections. Following is an excerpt from the subject inspection executive summary:

First, the nacelle, hubs, power units, and misc. materials were constructed in Denmark. In Section 6.2.3 Tower in the first paragraph (Page 6-2) of the Application for Certificate of Site Compatibility (Docket #8) it stated that all welds are made in automatically controlled power-welding machines and are ultrasonically inspected during manufacturing per American National Standards Institute (ANSI) specifications. Welds on the towers were ultrasonically tested during production according to Allete. The towers sections were manufactured in West Fargo, ND and ANSI specifications were followed. However, some of Siemens' tower parts were fabricated in Europe and to European norms. The technique used was according to EN1714 and the acceptance criterion was according to EN1712 standards for European parts. Allete should have the manufacturer of the wind turbine or a Registered Professional Engineer summarize the European weld inspection standards (EN1714 and EN1712) versus the American National Standards Institute specification to assure that the European standards meets or exceed ANSI standards pertaining to welding wind towers. This additional information should be submitted to the Commission to verify welds were properly inspected during manufacturing.

Minnesota Power's response to this first concern follows:

Section 6.2.3 Tower (Page 6-2) of the Application for Certificate of Site Compatibility relates to tower sections only of the wind turbine generators. The tower sections are components of a manufactured product designed in accordance with applicable European standards. The base, mid, and top tower sections were all fabricated by DMI Industries, West Fargo, ND. Siemens Wind Power A/S has provided information indicating that the tower sections are ultrasonically tested in accordance with Siemens Control Instructions. Siemens Control Instructions require that tower weld ultrasonic inspections comply with techniques established in EN1714 and acceptance criteria established in EN1712. Siemens has also indicated that US domestic suppliers are permitted to follow American Welding Society (AWS) specifications (Approved by American National Standards Institute (ANSI) as modified to additionally ensure compliance with Siemens requirements.

The second concern is related to as-built locations of several wind turbine generators. Following is an excerpt from the subject inspection executive summary:

Second, Allete stated that no turbine locations were moved or relocated after construction started. No record was found in the case file of any turbines being relocated. During the construction inspection, seven as built locations were checked to verify turbines were not relocated. It was determined that the as-built locations for turbines 314, 319, 320 and 321 were not constructed in their proposed locations according to the turbine table coordinates of proposed locations on Drawing C-04 (Docket #47). Allete mentioned concerns with turbines 314, 319, and 321 during the inspection. Therefore, some turbine locations were constructed in different location compared to the turbine table design drawing coordinates issued for construction. This will also affect the UG conductor/fiber route to these turbines. Appendix A graphic shows PSC application locations versus field check locations. Coordinates from the final as built drawings should be compared to the turbine table coordinates in the drawing issued for construction to identify changes. The Post Construction inspection should verify more turbine location coordinates with a field check. The Commission may want to discuss this issue directly with Allete, Inc. as location discrepancies were found during the construction inspection.

Minnesota Power's response to this concern follows:

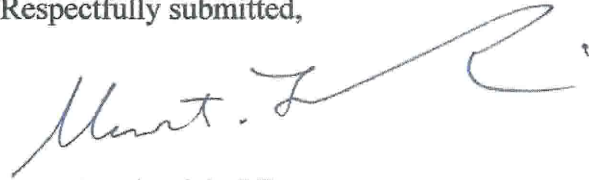
Minnesota Power provided a project layout of the proposed turbine locations as part of the Bison 3 (PU-11-162) Supplemental Application filing submitted September 12, 2011. The original shape files locations depicted in the Bison 3 Supplemental Application show the correct locations for the Bison 3 turbines.

Minnesota Power subsequently submitted preconstruction drawings to the PSC on October 14, 2011. A turbine coordinates table on Drawing No. C-04, REV No. 0 inadvertently included typographical errors on the northing and easting coordinates for turbine #314, #319 and #321. This error was noted prior to constructing the roads, foundations, and other facilities for these turbines. The drawing was subsequently revised to show the correct coordinates.

These turbines along with turbine #320 were constructed at the locations identified in the Supplemental Application as verified by survey performed by Ulteig Engineering, Surveying, and Consulting Services, Bismarck, ND.

The attached table identifies the coordinates of each turbine as indicated in the Supplemental Application and as compared with the as-built coordinates determined by Ulteig.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Matt Freudenrich", with a stylized flourish extending from the end.

Matt Freudenrich, PE
Construction Manager
Bison 2 and 3 Wind Projects

Cc. R. Gullicks, K. Benoit, D. Moeller, J. Atkinson, D. McCourtney` (electronically)